



Proceedings of the Workshop on Comparative Economic Advantage of Alternative Agricultural Production Options in Swaziland

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ACRONYMS AND ABBREVIATIONS

APRU	Agricultural Policy Research Center
CARPA	Center for Agricultural Research and Policy Analysis
CEA	Comparative Economic Analysis
COMESA	Common Market for Eastern and Southern Africa
EU	European Union
FAO	Food and Agriculture Organization
NGO	Nongovernmental Organization
RCR	Resource Cost Ratio
SADC	South African Development Community
UNISWA	University of Swaziland
US	United States
USAID	United States Agency for International Development
WTO	World Trade Organization

SUMMARY OF MAJOR FINDINGS AND RECOMMENDATIONS

Introduction

The workshop was organized to disseminate the findings of a study on “Comparative Economic Advantage of Alternative Agricultural Production Options in Swaziland on April 4-5, 2001 at the Kwaluseni Campus of the University of Swaziland. The eight crops in the study were sugarcane, pineapple, grapefruit, oranges, cotton, maize, groundnut and cabbage. The Honorable Minister of Agriculture and Cooperatives, Mr. Roy Fanourakis officially opened the workshop. It was attended by about 70 participants, who were drawn from farmers, policy makers, planners and staff of the University of Swaziland.

Major Findings

1. Maize had low comparative advantage in all the agro-ecological zones, except in the Lower Middleveld. But maize is a food security staple food crop and efforts should be made to improve its production.
2. Cotton and groundnuts were competitive in their respective production systems, and they deserve more expansion
3. Sugarcane was the best crop for the Lowveld, with an RCR of 0.22, especially where there are suitable soils and water and where distance from the mill did not exceed 80 km. There was need, however, for caution as the quota markets with preferential prices from United States and European Union markets are likely to be discontinued.
4. Pineapple has comparative advantage in the Middleveld. But sugarcane production by small-scale farmers on Swazi Nation Land is likely to encroach on land for pineapples.
5. Grapefruit and oranges have comparative advantages of RCR of 0.24 and 0.52, respectively in the Lowveld.

Major Recommendations

1. Although maize has low comparative advantage generally, it is a food security crop and its production should be increased through intervention with drought tolerant varieties, use of high quality seeds, fertilizer application, and crop protection.
2. More sugar will be sold in the open market in the near future due to loss in quota, thus reducing present comparative advantage. It is crucial for growers to improve on production efficiency in order to maximize profits.
3. Water scarcity and cost of irrigation water, since there is a bill soon to be passed in Parliament asking farmers to pay for irrigation water, will increase production cost and further reducing the present comparative. This further illustrates the importance of efficient production in order to reduce cost while maximizing cane and sucrose yield and quality.

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4. Small-scale farmers on Swazi Nation Land, who wish to grow sugarcane should be encouraged to intercrop cane with food crops for food security reasons, as is done in Mauritius, Fiji, and parts of India.
 5. Similar studies on other crops should be studied.
 6. The findings on the eight crops need to be updated, since 1995/96 data were used in the study.
 7. There was competition between maize and vegetables for water in the Highveld and the possibility of irrigated vegetables should be explored.
 8. There was also competition between sugarcane and citrus in the Lowveld. But priority should be given to sugarcane.
 9. The study was very valuable, but should be written in more user-friendly language for various stakeholders such as policy makers and agribusiness.
 10. The findings should be summarized in two to three pages for wider distribution.
 11. Holistic studies that include trade and transport should be conducted.
 12. Existing crop budgets in the appendices should be developed into models so as to facilitate wider application and provision of information that will keep abreast with technological advances and market dynamics.

CHAPTER 1. BACKGROUND AND OPENING SESSION

1.1 Background

USAID missions in the southern Africa region, in collaboration with national institutions and researchers in selected countries, decided to facilitate the analysis of the impact of evolving trade and agricultural policies on agricultural productivity and food security in the region and Swaziland was one of the seven countries, the others being Malawi, Mozambique, South Africa, Tanzania, Zambia, and Zimbabwe. In Swaziland the crops selected for their competitiveness were sugarcane, pineapple, grapefruit, oranges, maize, cotton, groundnut, and cabbage.

The late Prof. G Magagula, of blessed memory, and Prof. H. Faki, of the Centre for Agricultural Research and Policy Analysis [CARPA] of the University of Swaziland, were among the scientists that conducted the study in Swaziland. The aim of the proposed workshop was therefore, to disseminate the findings and recommendations of the study. Swaziland is a land-locked country, whose economic and social bedrock is based on agriculture, with crop production making a very significant contribution to the gross national product, especially when the agro-based industries are included. The workshop, was therefore aimed at providing some recommendations and guidelines on the following:

- the contributions made by the six agro-ecological zones and the two sectors, the small-scale and estate sectors, to the country's macroeconomy;
- the comparative economic advantages (CEAs) that Swaziland has in the production of selected major crops in the different agro-ecological zones;
- agricultural policy and production guidelines that will enhance Swaziland's competitiveness regionally of the various crops in the study; and
- policy and institutional reform options that will guide the Kingdom towards optimal use of her domestic resources in agricultural production.

It was also hoped that the workshop would provide policymakers, agricultural administrators, farmers, agribusiness, donors, nongovernmental organizations (NGOs), international organizations and other agricultural stakeholders with an informed basis upon which to judge current agricultural sector performance and to anticipate areas of potential growth of the future.

1.2. Participants

About 70 participants attended the workshop. These were drawn from the following: policy makers, technocrats, the Ministry of Agriculture, Ministry of Trade and Industry, chambers of commerce, farmers, processing industries, University of Swaziland, the public and private sector and the media houses among others.

1.3 Opening Ceremonies

Opening speeches for the workshop are located in Appendix A.

CHAPTER 2. PRESENTATION OF THE MAIN FINDINGS OF THE STUDY

2.1 Speech on Objectives of the Workshop (by Prof. O T Edje, Acting Director, UNISWA Research Center)

The Honorable Minister of Agriculture and Cooperatives, the Vice Chancellor of the University of Swaziland, Ms. Kitiabi, The Regional Trade Adviser, Professor F. Mucavele, the Dean of the Faculty of Economics, Eduardo Mondlane University, Dr. C. Mataya, Director of the Agricultural Policy Research Unit, Bunda College of Agriculture, University of Malawi, Dr. G N Shongwe, Dean, Faculty of Agriculture, University of Swaziland, invited guests, ladies and gentlemen.

I wish to join my colleagues in welcoming you once more to this very important workshop, whose main objective is to disseminate the findings of the study on “Comparative Economic Advantage of Alternative Agricultural Production Options in Swaziland” among relevant stakeholders in the following crops: sugarcane, pineapple, grapefruit, oranges, cotton, maize, groundnuts, and cabbage.

Additionally, the workshop had the following objectives:

- to make recommendations on the comparative advantage that Swaziland has in the production of the selected crops and suggest how Swaziland can enhance its competitiveness regionally and globally,
- make recommendations on the way forward and suggest strategies for their implementation, and
- identify institutions that will implement the recommendations, and where possible, state enabling strategies and benchmarks.

2.2 Speech on “Agricultural Comparative Advantage of Swaziland in Southern Africa” (by Brian D’Silva, USAID/Washington, USA)

Honorable Minister of Agriculture, Madame Vice Chancellor, the Pro Vice Chancellor, ladies and gentlemen.

While I regret that I am unable to be personally present with you on this occasion, I am indeed happy that this workshop is taking place. As I was there when this activity was initiated under the leadership of the late Professor Glenn Magagula, you may count on me being here in spirit for the workshop.

For Glenn, one of the most important aspects of this activity was that it was to be implemented by researchers and policy analysts from within Southern Africa. Needless to say, this is what happened — not only in Swaziland, but in all of the seven countries in which his activity was implemented. While we miss Glenn terribly, we are at least true to his vision in that this dissemination workshop is taking place and those individuals from Swaziland, Mozambique, and Malawi are all taking part.

The results from this study are not only important for Swaziland but, taken together with the results of the other six countries, important for all of southern Africa. This is especially true as Southern Africa moves towards achieving its goal of trade liberalization, food security, and economic integration.

During the first week of May, we will be holding a regional workshop in Pretoria where researchers and policy makers from all seven Southern African countries will take part in presenting their results to a regional audience and getting valuable feedback. The regional workshop will also be a forum to honor the late Professor Magagula. We would like to invite Glenn's colleagues from the University of Swaziland as well as those from the Government of Swaziland to join us in this regional workshop to honor Glenn.

I wish you all a successful workshop and look forward to hearing about these deliberations. Finally, let me congratulate Professor Edje and the local organizing committee on a well-organized and successful workshop.

2.3 Summary CEA of Alternative Production Options in Swaziland Presentation (by Prof. Mucavele and Dr. C. Mataya)

2.3.1 Objectives

The two-day workshop was organized to disseminate findings of the Comparative Economic Advantages of Alternative Agricultural, co-authored by the late Professor Glenn Magagula and Prof. Hamid Faki (1999). This study was part of a series of regional studies supported by the United States Agency for International Development (USAID) through the Agriculture, Natural Resources and Rural Enterprise office of Sustainable Development Bureau for Africa, under the terms of Grant No. 623-0478.23-A-00-4092-00.

The expected outcome of the workshop was to make recommendations and finding on the following:

1. the contributions made by the six agro-ecological zones and the two sectors, the small-scale and estate sectors to the country's macroeconomy;
2. the comparative economics advantage of selected major crops in the different agro-ecological zones,
3. agricultural policy and production guidelines that will enhance Swaziland's competitiveness regionally of the various crops that will guide the kingdom towards optimal use of her domestic resources in agricultural products.

In addition, the workshop was expected to provide policymakers, agricultural administrators, farmers, agribusiness, donors, NGOs, and international stakeholders with an informed basis upon which to judge current sector performance and to anticipate areas of potential growth for the future.

2.3.2 Organization

The workshop was well organized in terms of logistics and timely circulation of relevant information and documentation, selection of venues and provision of audio-visual aids, hospitality, administrative and technical support, the presence and participation of the “Minister of Agriculture” and high ranking University officials including the Vice Chancellor, during the opening ceremony, gave the dissemination workshop a high profile and prominence it deserves. The media, both newspaper and television, provided adequate coverage to the workshop.

The workshop was well attended by a cross-section of stakeholders including policymakers, researchers and administrative within the University and government departments, extension personnel, large and smallholder farmers and representatives from marketing agencies and the processing industry. The composition of participants was gender sensitive, as women constituted more than 30 percent of the delegates.

The technical nature of the report and the distributions further rendered the discussions abstract to smallholder farmers.

Hence a recommendation was made that the findings be made more user friendly to improve the utility among small-scale farmers and other stakeholders who are technically disadvantaged.

Marketing agencies and agro-industry including processing agencies were inadequately represented, while business community especially trades, exports and imports, the Chamber of Commerce, bureau of standards, export promotion council and financial institutions were not represented at all.

While the finding and implications of the study were adequately discussed, there is need to organize round table discussions through the radio, TV and other media to increase awareness of the agricultural development opportunities existing in Swaziland to all relevant stakeholders. This process will also create an avenue for generating feedback on recommendations made during the first dissemination workshop.

2.3.3 Presentation of Findings

The presentation of major findings of the study was divided into two parts each lasting one hour. Part I provided comparative advantage indicators with respect to pineapples, grapefruit and oranges, while Part II provided indicators for the other crops, maize, cotton, cabbage, and groundnuts. Each of the presentations was followed by a plenary session during which pertinent issues and implications of the findings were raised.

2.3.4 Group Discussions

Participants were subdivided into group on the second day of the workshop to examine if there were gaps in the report, identify constraints limiting CEA for the crops, under consideration, identify the country’s potential to utilize the existing comparative advantage and suggest strategies for implementing recommendations made during the two-day workshop. The purpose

of the group discussions was also to recommend the way forward with respect to issues raised during the workshop.

Amongst all the crops, sugarcane was identified as having the highest comparative advantage followed by grapefruit, pineapples, cabbage and cotton. However, it was observed that sugarcane is a controlled commodity despite the fact that Swaziland is low cost producer and that Swazi sugar has a high sucrose content. Swaziland has preferential treatment through the quota within the European Union (EU) and the United States (US), as such, the price for her sugar is higher than the world price. This raises concern as to what would happen if the preferential treatment were to be removed. There is therefore need to develop a strategy to deal with such eventuality.

2.3.5 Major Constraints

Major constraints identified as limiting comparative advantage included:

- poor marketing system, transport, and road infrastructure;
- land tenure;
- policy distortions;
- poor prices especially for maize;
- costly inputs;
- lack of organization among smallholder farmers;
- poor information base;
- poor management of farm mechanization services;
- inadequate access to capital; and
- poor technologies and extension services.

As regards policy distortions, the report does not have data and information on which to base its analysis. There is need to provide a brief background on policy distortions. While information on maize exists almost in all agro-ecological zones there are gaps with respect to the other crops that need to be filled.

On land, there is need to consider production potential in level tenure system, indicator by the agro-ecological differences in comparative advantage. Currently, there is uncertainty on the optimal and holding size, yet this important with respect to efficient resource use.

Organization of farmers into cooperatives was observed as an effective strategy to reduce cost of processing inputs and also strengthen their capacity to negotiate for better prices and policies with the government.

In general it was recommended that the CEA analysis would be updated every two to three years to capture the social and economic as well as environmental effects on comparative advantage that occur quite frequently.

2.4 Question and Answer Sessions after Prof. Mucavele's Presentation

Question

How can we make smallholder farmers become competitive and export oriented? Since the results of the study were made on the assumption that all things being equal/constant, how valid will this study be for extreme conditions? It is said that the rainfall being enough certain things would happen but how would you accommodate extreme conditions in your study?

General Comment and Question

Swaziland is developing two irrigation projects on the Komati and Usuthu rivers. The presentation was enlightening as far as smallholder farmers were concerned. Since the study was based on 1998 figures, a good picture on pineapple and citrus growing was painted but people are moving out of pineapple and citrus growing some were even cutting their trees — can we be enlightened on the reasons for these?

Responses

The resource person does not have answers to the questions but has ideas of how some of these problems could be solved. Africans, unlike Asians, are pessimistic and as such little could be done for them.

The Americans have their spirit high even when conditions do not allow. *Yes*

The smallholder farmer should be export oriented and extension workers should help the farmers by making them more knowledgeable. Since they have low productivity standards (although the standards had not been analyzed) and if that efficiency could be maintained and they are made to produce a little more, they could reap the benefits. There are three types of efficiency, technical and allocative efficiency. The work is not finished but the comparative advantage of certain crops has been done. The study did not start with these groups. The study is valid since it gives capital knowledge and reveals some indicators. There is need for irrigation in the Lowveld. There is need to assume an efficiency of 65 percent in the use of water but in the Lowveld it is lower than that. There is a lot of room for improvement in this area. It would be too costly to provide irrigation for the Middleveld. If we have to sell pineapples, people like the chunky pineapples and it had to be different from other types in the market.

Comment

In Swaziland the comparative advantage for smallholder farmers is in sugarcane but the only problem is that we have our eggs in one basket.

Comment

There is need to spread the risk to other crops. We should also try to spend less and achieve more in agriculture. The advantage farmers have is that people always eat. Smallholder farmers are important since they do organic farming, although they have low yields but these could be exported to cost more. We should take advantage and create a market for such crops.

Question

In Swaziland, we need institutions to help farmers to respond to market needs, e.g., farmers are now selling chicken and eggs to Mozambique yet Swaziland does not have enough of these, why?

Answer

Farmers should increase the production of chickens and eggs so that the produce is enough for Swaziland and Mozambique and they should not be prohibited to sell to Mozambique.

Question

If one looks at the current water situation for natural water in Swaziland it can be noted that all water is already allocated. The cost of providing additional water to agriculture to high and agriculture is not able to provide for that — how is this viewed in trying competitiveness? e.g., Industry is prepared to pay two to three times more for water than what agriculture could be prepared to pay.

Answer

There is need to invest in development that will not be immediately repaid or compensated. Industry is prepared to pay more for profit and agriculture could do the same for long-term benefit. The US began on a water retention program and they now see the returns.

Comment

The question on adverse effects is not addressed by this study. In every market, planning for adverse conditions is given to other institutions such as meteorological stations. Strategies have to come from individual countries. The market reacts to thing that it can make positive. Kenya spearheaded going into the COMESA market, then the manufacturing industry took it up and it has been able to take over from the EU. We should not think that adverse effects come suddenly.

Question

What can be done about the monopolies, the pineapple and citrus industry are monopolies in Swaziland?

Answer

Unfortunately the license was given out and was for seven years but something is being done.

Question

Is the study valid for a range time? Are we going to have another study in five years time?

Answer

The study is valid for 1998-2001. If prices of land, labor, and water change drastically, then another study could be done but if the status quo is maintained, there is no need another study. That's why a break-even analysis of prices and yields was done. Comparative economic advantage studies are usually the basis and other studies such as competitiveness studies of certain crops should be done. At this time the office is now doing a study for COMESA on the competitive triangle.

Question

There is need to know of policies that make other products taxable and others not.

Answer

Policies are principles that have to do with the social, technical and cultural and should be left to the nationals to discuss them.

2.5 Questions after Dr. Mataya's Presentation**Question**

The time lapse between when the research was done and now seems to pose problems. Wish to inquire whether the increases in production reflected in the CEA for sugar still hold for now since there are differences in output prices making the comparative advantage nonexistent?

Comment

The new water act in terms of resources can turn things upside down because water has to be paid for when this has not been the case. For a long time, water has been taken as a free commodity compared with other countries.

Question

In relation to sugarcane and putting eggs in one basket, what kind of economy would we like to build for the country? Since the social factors cannot be quantified, then they were not taken into consideration?

Answer

Issues of comparative economic advantage are dynamic. Volume affects comparative advantage in two aspects — if the price level of that commodity is much less than that of another country. Increase in volume is via increase of productivity.

When the price of land increases, comparative advantage goes down and as water rates go up, we may lose comparative advantage.

In relation to equity, other studies have included other factors such as geographical development and how many people benefit and environmental sustainability.

For maize if we improve on technology, we lose comparative advantage, why? We introduce taxable inputs such as fertilizer while the farmer using open pollinated varieties does not have those inputs. Food security comparative advantage is an important principle since it is the right of everybody to have food. Smallholder farmers could grow organic pineapples and not do much work. When we recommend certain crops we don't mean to leave others but to create value for them.

Question

As one drives along the countryside, good sugarcane on one side of the road could be seen and on the other side very small maize the size of a cigar could be seen. Have sugarcane growers

thought of the cutter who needs to eat maize in order to be able to cut the cane? Sugarcane always talks of money — what if they could spare a little of their fields to grow maize?

Answer

The cane cutters are paid good wages and could grow maize if they want. A question should be asked? Do the people want to grow maize or they want the money? Let it come from the cane cutters when they bargain for their wages. Most cutters do not want to be farmers but want money to buy the maize. They don't want to grow maize but are interested in profits and its private enterprise and they consider probability and risks. Historically, the climate has failed people in other crops but sugarcane is a stable commodity. This is not to say other crops such as coffee and tea should not be considered but we should be realistic and conduct sensitivity analysis studies. We should go beyond comparative advantage.

Question

If the growing of sugarcane is moved to Swazi Nation Land to be grown by people with an attitude towards farming what can be expected?

Answer

SKPE was set up to help smallholder farmers. People doing farming at a social level should be advised to consider risks. SKPE intends to create smallholder farmers who would be sustainable and be in business for longer. These farmers should be advised to put in a little more capital since it would pay for the future.

Question

Is agriculture in Swaziland business since in Mozambique its not? In Mozambique agriculture practiced by those who fail to make it in other enterprises.

Answer

In Swaziland the situation is slightly different. There have been several programs put in place to encourage people to do farming like the EKHAYA program. This has led people doing agriculture for business on Swazi Nation Land. Pulses are grown on Swazi Nation Land.

Comment

Dominant stakeholders — the returns problems, in maize returns are good but providers of finance may not provide finance for maize look at the situation from the implementation point of view.

CHAPTER 3. WORKING GROUP DISCUSSIONS

After presentation of the results of the study by the two resource persons, Prof. Mucavele and Dr. Mataya, participants were divided into groups with the following terms of reference:

1. Identify gaps/distortions in the study with respect to the crop and suggest strategies for action.
2. List constraints that hinder economic advantages of the crops that were covered in the study and suggest how to address them.
3. List potentials that can enhance comparative economic advantage of these crops and state how they can be harnessed.
4. Make recommendations and suggest strategies for increasing competitiveness.

3.1 Presentation of Group Reports

3.1.1 Sugarcane

The conclusion was that sugarcane was the best crop for the Lowveld (where there were suitable soils and water and where distance from the mill did not exceed 80 km). There was need for caution as the quota markets with preferential prices that are of benefit to us (US and EU) are likely to fall away in time and this will reduce the overall price of sugar on the world market. There is a heavy sugar (cane and beet) subsidy on prices in both the US and EU.

Identify gaps/distortions in the study with respect to the crops in your group and suggest of action.

- Sugarcane is a controlled commodity with preferential markets. There is a danger that in future the preferential markets may fall away. The threat to Swaziland is real despite the price of sugarcane; we should also look at the external protection in light of the need to use a social price.
- Smallholders should not lose sight of potential for intercropping, for developing irrigation, providing water.
- Sugarcane as a farming system for smallholders could encourage use of animal manure, tops of sugar as winter feed for animals. Sugarcane farming system should be interfaced into the land tenure system as it exists and as proposed.
- Report appears to lack some vital data such as policy distortions (what led to these distortions). The report should have more assumptions and that the report should be updated in Swaziland using the framework in the report.
- Water is scarce despite current arrangements.
- Changes in land tenure system and we should be sensitive to this new development.

List constraints that hinder economic advantages and how to address them.

- Water is one constraint.

- Financial limitations. There is no financial institution to support sugarcane production. SKPE, Tibiyo appear not to have enough financial resources for people to borrow from.
- Uncertainty about appropriate optimum hectares while 7 to 10 hectares is recommended when prices are low, in Swaziland, hectares appears recommended.
- Cheap transport is essential. Transport infrastructure (road, railway, etc) is needed and should be considered. Production should be 80 to 110 km from the mill. Turnaround time in Maputo is no longer than in Durban-Richards Bay. Swaziland exports most through Maputo.
- Skills, extension, and training are vital and available.
- Sugar must be grown on good, not marginal soils. Farming should be based on the capability of the soil and not threaten food security.
- While only 10 percent is very good farming land, there is not much enabling environment to protect land from being put to other uses such as housing.
- Loses; pilferage.
- There does not seem to exist a plan/good plan on land/resource use.

List potentials that can enhance comparative advantage and how these can be harnessed

- Sugarcane is a Lowveld crop and Swaziland has much of that. This may also help in delaying mechanization because of labor, which is in the Lowveld.
- Young people are potential sources of labor during the sugarcane cutting. Labor is abundant and cheap Swazi labor is productive and is responsible in the way they work.
- Distance from the ports, South Africa is short. South Africa is a large market.
- Good return on investment at 100 tons of cane and 1400 tons of sugar per hectare. At current prices and marketing arrangements, there is much comparative economic advantage in growing sugarcane. This structure should be sustained by being proactive.
- Water is a CEA; sugar companies have invested a lot in irrigation.

Make recommendations and suggest strategies for increasing competitiveness.

Need to keep model presented alive and updated annually. Need to include price support (i.e., and EU quota markets — outside support of prices).

Identify institutions, enabling strategies and benchmarks for the implementation of the strategies.

- The model should be kept alive and applicable in conjunction with a partnership of stakeholders (SSA, UNISWA, Union, Malkerns Research Station, etc).
- Swaziland should be linked to the regional sugar growing marketing arrangements.
- Financial institutions (e.g., SIDC has financed smallholder sugar producers; Swazi Bank).

3.1.2 Enabling Strategies

Institutions involved must ensure that all stakeholders take proactive actions to support the industry.

Question

What is meant by the protection of the sugar industry in Swaziland?

Comment

The current trend is to reduce and finally eliminate tariffs and artificial price supported on commodities. The sugar industry in Swaziland presently sells its sugar under a quota system to the EU and USA at above world market prices. This results in sugarcane being a lucrative business in Swaziland. Swazi farmers/smallholders are being encouraged to plant sugarcane in light of the fact that the artificially high preferential process which Swazi sugar now receives will soon be coming down to the world sugar price, this will negatively affect the smallholders. Thus the profitability of the sugar industry is expected to decline.

Comment

There is need to introduce economies of scale to lower costs and be able to be competitive.

Comment

Interesting to note that Swaziland is one of the main sugar producers in the world is still in the top 10. We need to improve on the transaction costs, with the way things are going in the World Trade Organization (WTO) this situation may not be sustainable for longer. In the model, external support should be added which was not in the model as represented yesterday.

Comment

SIDC finances smallholder farmers and with the reduction of support it is usually the smallholder who suffers first and most. SIDC was getting flooded with requests from people who would grow sugarcane.

Question

Sugarcane being a long-term and high initial capital crop. What can be on effects of our Land Tenure System which there is no security of tenure under Swazi Nation Land. The investment is not secured under Swazi Nation Land as had already happened in the Ka-Mkhweli/Macetjeni saga.

Response

There were proposals for changes to be made in the land tenure systems although the specifics of what is in the proposal are not known.

3.1.3 Maize

Identify gaps/distortions in the study with respect to the crops in your group and suggest of action.

- Need to update the report — group commented initiation of report. Recommended that it be updated done in interval of 2-3 years in maize considering the devaluation of the currency.
- The report has adequate information of maize in the region — some information was missing on other crops and why?

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- Complete analyses of technology, varieties used. Gaps in break even yields. Make sure other technologies factored in and study should be replicated with more information.

List constraints that hinder economic advantages and how to address them.

- Price of maize rather low, yet input costs on higher side. Study refers to taxation being high and it is not clear what is taxed, technology or something else?
- Ethnological costs too high. Need technological advancement to transform maize to something as cornflakes.
- Marketing issues — transport costs.
- Value added issue — what has been done to maize, sold as is?
- There is need to form associations for better bargaining — farmers have not formed associations for better bargaining power.
- Training or education and cannot be overly emphasized. Farmers in Malawi have been able to influence policy and some have insured crops since they went through formal education.
- Varied ecological zones — not all included, why? There were crops which not grown only in one region but more yet in report appeared in one that is seen as a constraint.

List potentials that can enhance comparative advantage and how these can be harnessed

- Mechanization — There were differences where there were interventions and when there were none the difference were also noted.
- Organized agriculture — groups could make big difference in influencing policy.
- Properly managed competitions (e.g., NAMCOM) winners could be used as mentors for other farmers.
- Information dissemination — looked at in a holistic point of view globally and disseminate to grassroots level. If developed and used effectively. Think of simplifying information for simple farmer to use.
- Improved government support. Government should show some degree of commitment.
- Creating database for information so that there could have reliable information and make use of it.

Identify institutions, enabling strategies and benchmarks for the implementation of the strategies.

- Farmers Associations
- NGOs dealing with Agriculture, ACAT, Council of Churches, Swaziland Chamber of Commerce
- Research Institutions
- Marketing – Ngwane Mills and National Maize Corporation
- Media

3.1.4 Enabling Strategies

- Initiate a debate on the subject through Mass Media, to reach out all the stakeholders.
- Currently private tractor owners are not helped by government and do not have tractor mechanics if they should pay a certain fee to have a government mechanic since also working toward self sufficiency — also have tractor pools so that farmer could get equipment when needed. Now only competing for government tractor pool yet distributed since tractor owners could help.

Comment

Rural Development Programme provides mechanization through Japanese donations but the equipment ends up lying idle yet it could be used. Management of that unit so that no equipment lies idle is necessary.

Question

It has been said there is need for farmers to form associations for better bargaining, since the price of maize is regulated by the Ministry of Agriculture, how could these association be expected to fight with the Minister of Agriculture?

Answer

Organized agriculture can achieve a better farm maize through making representation to government. Farmers through speaking with one voice can influence things to their advantage.

The reason the government tractor hire is so inefficient is precisely caused by relying on donated tractors and implements that are foreign made. The package does not include training of local mechanics on maintenance and repair of these foreign makes. No spare parts are provided. These tractors run for a short term and break down sooner than later.

Comment

Study by Dube – looked at tractor hire service in Swaziland. It found that lack of management and maintenance were the main problem usually line of farmers needing the equipment is too long and by the time the equipment is available, farmers should speak in voice and could make the impact.

Comment

That with respect to mechanization, the government has since realized that it cannot cope with the dynamics of this sector in the restructuring program it had been recommended that the Unit should be privatized since some of the equipment donated is usually secondhand.

Comment

Maize price in Swaziland is controlled not to shortchange the farmer but on the contrary to support him so that he does not get a price below a certain threshold. Please note:

- The gazetted price in Swaziland is actually pegged to the Republic of South Africa, which is an international price.

- The average long-term gazetted price in Swaziland has over the years been higher than the Republic of South Africa price.
- Therefore farmers are getting a good price compared to what they would otherwise.

Question

Gap on update of report — what is it that needs to be updated? Need another study of where we have comparative advantage or study of competitiveness. Varied ecological zones — methodological issue. Zones selected in method what is the constraint? Method not efficient in selecting zones or important zones not included?

Answer

Pg. 57 of Report 5.7 and 5.8 has three ecological zones – where do you allocate maize to be grown? Pineapple in one — does it mean cannot be grown in other fields or there is a group. If to chose crop with better comparative advantage could be choose sugarcane but in Highveld could choose maize but may not be time gap in information. Need to go and collect information

- Cotton only Lowveld: 44 and average 38 means somewhere else higher comparative advantage and need to know that place the let the average go down to 38 type of follow up studies.
- Transaction costs not in this report. Need to go ahead and add it update find out if yields go up and down need to complete and update information.

Comment

Comparative advantage is influenced by a number of factors including productivity technology, prices and exchange rate. White productivity and technology may not change quite rapidly say between two to three years, prices and exchange rates change quite readily, especially in liberalized environment. This affects demand for commodities and comparative advantage. Regular updates may reveal changes in would preferences and demand and this could change the structure of commodities that constitute the national priority. New or nontraditional crops may in fact replace traditional ones that may have earlier enjoyed substantive comparative advantage.

Comment

Some of the gaps are in terms of the assumptions made in arriving at the results not being provided. The report though is a very good report and very informative.

The conclusions made are very strong and have serious policy implications For example, an RCR of 0,22 on sugar can says Swaziland can earn or save foreign exchange buy almost five-fold of domestic resources used. This is a very important statement that needs to be backed by the assumptions used for people to have confidence in it. The sugar group asked if the RCR 0.22 on sugar did take into account that sugar price is derived from a supported sugar price, which is distorted?

Similarly, groundnuts are effectively protected to the tune of 23 percent on SNL. There is no known government intervention on groundnuts, so what is the source of the support? The answer could probably be found in the assumptions used, which are not stated in the report.

Conclusion

The conclusions of this conference in terms of the study and regional cooperation in the future had not been discussed when the consultant left the workshop as it went over time. He believes that it would be up to the Swaziland Institutions (i.e., UNISWA and commodity organizations (SSA Economist) to work on the basic model and to keep it alive.

3.1.5 Groundnuts

Identify gaps/distortions in the study with respect to the crops in your group and suggest of action.

Discussion about groundnuts is rather poor compared to the other seven crops. In view of the above, it is difficult to even mention gaps and/or distortions in the report

List constraints that hinder economic advantages and how to address them.

- The current varieties are rather old, having been released about 20-25 years ago.
- The available varieties have a very narrow genetic base with respect to adaptation, yield and usage.
- Lack of availability of high quality seeds at reasonable prices.
- Lack of drought tolerant varieties.
- Lack of credit to production inputs.

List potentials that can enhance comparative advantage and how these can be harnessed

- The crop is the second most popular grain legume crop in Swaziland, indicating that there is high potential for its increase in production in Swaziland, especially as a food crop.
- It has high potential for imported cooking and industrial oils for Swaziland.
- There are suitable climatic conditions for its production in parts of the Highveld, Middleveld and Lubombo.
- The potential for export, especially of confectionery groundnut is high.
- The fact the farmers prefer fallow land for the production of bambara groundnut, while groundnut does not is an added advantage to its production.

Identify institutions, enabling strategies and benchmarks for the implementation of the strategies.

- Groundnut is a food crop and its production can be increased using similar approaches and strategies as those for maize.
- Farmers associations and NGOs should improve bargaining powers of farmers.
- Chambers of Commerce to encourage production and influence marketing.
- Ministry of Agriculture and Cooperatives to conduct more on-farm research with active participation of farmers and extension workers.
- The print and electronic media to educate and promote groundnut production activities. .

3.1.6 Cabbage

Identify gaps/distortions in the study with respect to the crops in your group and suggest of action.

None of major concern

List constraints that hinder economic advantages and how to address them.

- Competition from farmers in neighboring countries
- Farmers in Swaziland still concentrate on maize and beans as the main food crops ignoring cabbage production. This makes production on a sustainable basis on contract to supermarkets difficult
- NAMBOARD, the organization that handles smallholder vegetable production, still has a problem marketing cabbage.
- The lack of storage facilities constraints its production.
- Some growers have problem marketing their produce due to lack of transport from homesteads to urban areas, where the demand is high.
- The current trend is for cabbage with small heads, while current varieties are with “large heads” that go to waste when not consumed at once.
- Fluctuation in price constraints its production.
- Glut of produce in the market lowers price at a time when most farmers wish to produce the crop.
- There is competition between other crops and cabbage for irrigation water.

List potentials that can enhance comparative advantage and how these can be harnessed.

- There is high demand for the crop as it is popular part of the diet in Swaziland.
- There are several rivers that can supply water for irrigation.
- Cabbage is a popular crop among Swazis, even in the rural areas.
- There is high potential for export to neighboring countries.
- There are commercial outlets, such as Vickery Nursery at Matsapha , for sale of cabbage seedlings to growers, relieving farmers the problems of raising their own seedlings.

Identify institutions, enabling strategies and benchmarks for the implementation of the strategies.

- NAMBOARD can play an important role in stimulating the production of the crop in Swaziland
- The Research Division of the ministry of Agriculture and Cooperatives should conduct more up-to-date research on all aspects of vegetable production, including cabbage.
- Farmers should form cooperatives that include the production and marketing of vegetables including cabbage. This will facilitate the marketing of produce, especially in contracting it to supermarkets.

APPENDICES

APPENDIX A. OPENING SPEECHES

WELCOME REMARKS AT THE WORKSHOP ON COMPARATIVE ECONOMIC ADVANTAGE OF ALTERNATIVE AGRICULTURAL PRODUCTION OPTIONS IN SWAZILAND

Dr. G N Shongwe, Dean, Faculty of Agriculture, University of Swaziland

The Honorable Minister of Agriculture and Co-operatives, the Vice Chancellor of the University of Swaziland, Ms. Kitiabi, The Regional Trade Adviser, Professor Mucavele, the Dean of the Faculty of Economics, Eduardo Mondlane University, Dr. Mataya, Director of the Agricultural Policy Research Unit, Bunda College of Agriculture, University of Malawi, distinguished guests, colleagues ladies and gentlemen, the organizers of this workshop have assigned me a simple task to perform this morning, which is to welcome all participants to this workshop on “COMPARATIVE ECONOMIC ADVANTAGE OF ALTERNATIVE AGRICULTURAL PRODUCTION OPTIONS IN SWAZILAND”

In this connection, I have the honor to extend a warm welcome to all of you to this important workshop. A special welcome is extended to the Minister of Agriculture and Cooperatives and to those among you who come from outside Swaziland. We are pleased that you found it necessary to take some time off from your busy schedule to attend to this workshop.

To our visitors, we hope that you were treated well from the point of entry to our country and also where you are accommodated.

Ladies and gentlemen, the results to be presented in this workshop are very close to the hearts of all of us in the Faculty of Agriculture and indeed to the agriculture fraternity in Swaziland. We, therefore, eagerly look forward to the presentation of the results of this research project and to the recommendations that will be formulated at the end of this workshop.

Lastly, may I wish all of you fruitful deliberations for the duration of this workshop.

Thank you.

WELCOME REMARKS AT THE WORKSHOP ON COMPARATIVE ECONOMIC ADVANTAGE OF ALTERNATIVE AGRICULTURAL PRODUCTION OPTIONS IN SWAZILAND

Professor L P Makhubu, Vice Chancellor, University of Swaziland

Honorable Minister of Agriculture and Cooperatives,
Ms. M. Kitiabi, USAID/REDSO/ESA Regional Trade Advisor,
Resources Persons,
Colleagues,
Distinguished Ladies and Gentlemen,

Hon. Minister, Ladies and Gentlemen, before I make my brief remarks may I request you to stand and observe a minute" silence in memory of the late Professor Glen Magagula, former Director of the Centre for Agricultural Research and Policy Analysis (CARPA).

Hon. Minister, Ladies and Gentlemen, it is a great pleasure for me to echo the welcome remarks of the Dean of Agriculture. I wish to extend a special warm welcome to the Hon. Minister of Agriculture and Cooperatives who has taken time off his busy schedule to join us this morning. Your presence, Sir signals your commitment to agricultural research and your willingness to work with the University in mapping out strategies to promote increased agricultural production in Swaziland. We have watched with admiration Hon. Minister, your efforts and that of your officers to combat the complexities of the Foot and Mouth Disease, which is threatening to become a global problem. We wish you well in your efforts.

I also wish to extend a special welcome to those of you who have come from outside Swaziland. We appreciate the fact that you considered the seminar important enough to warrant your travel to Swaziland. Your presence will without doubt enrich the discussions as you share your own experiences and views on comparative economic advantage of alternative agricultural production options in Swaziland. The crops that are listed in the program are of economic and subsistence importance in this country. We look forward to hearing your views on the topic.

Honorable Minister, CARPA was multifaceted innovation bringing together regional expertise to develop knowledge capacities through exchange of ideas and information under the Research Programme on Regional Trade and Changing Comparative Advantage in Southern Africa. In the face of rapid changes in global social and economic circumstances, indeed in every aspect of human endeavor which are a feature of our times, initiatives such as CARPA have become an imperative, especially in developing countries. Such programs are not an end in themselves but are an essential means enabling our institutions to continuously explore new avenues and directions to cope with the changes and evolve ways to increase national and regional efficiencies in all development sector. This program was intended to explore ways to ensure increased agricultural output and ways of ensuring the regions competitiveness in a fast changing global economic environment. Agriculture is the backbone of most economies in Southern Africa and efforts to increase agricultural production must be promoted to ensure sustainability of national and regional endeavors that benefit the majority of our people. Our people look upon

universities and research institutions as generators of ideas that will improve their livelihood and enhance the quality of their lives. We cannot afford to let them down.

Ladies and Gentleman, there are new and growing challenges in the area of agriculture which researchers in Africa must face squarely to enable our countries to contribute to the mainstream of knowledge and benefit from the unprecedented advances in S & T, which are shaping a future that will be very different from what was familiar in the 20th century. Elements of this future include the impact of information technology genetically modified organisms, organic farming, all major topics for discussion for economic health, environmental, ethical and other reasons. Research has never been more important in our countries.

I welcome you again Mr. Minister, and all of you Ladies and Gentlemen.
May you have a good day.

OCCASION: OFFICIAL OPENING OF THE SEMINAR ON “COMPARATIVE ECONOMIC ADVANTAGE OF ALTERNATIVE AGRICULTURAL PRODUCTION OPTIONS IN SWAZILAND”

By the Honorable Minister for Agriculture and Cooperatives, R.D.N. Fanourakis

The Vice Chancellor,
Pro Vice Chancellor,
Representative of USAID, without whose vision and financial support this gathering would not have happened,
Ladies and gentlemen, I greet you this morning,

It is my pleasure to be here with you on this important seminar where results of the study on “Comparative Advantage of Alternative Agricultural Production Options in Swaziland” are being presented for discussion.

This study has indeed come at an opportune time, when all our economies in the region are beginning to respond, though reluctantly, to the sweeping winds of market liberalization that are blowing throughout the continent. Indeed the message that liberalization has been sounding with increasing resonance is loud and clear: the survivors would only be those who produce what they are good at — or in economics jargon — those who have a comparative advantage. Here in Swaziland we are already experiencing market liberalization in some sectors of the economy, including agriculture. As to be expected, this has presented both challenges and opportunities. We therefore expect to gain a lot from this study and seminar in terms of learning about our strength and weaknesses and how we can seize some of the opportunities.

Mr. Chairman, I would like to give a brief background to Swaziland. Since independence in 1968, the country as most of you will know, experienced impressive and sustained economic growth for a period of time. The 1990s however saw a reversal of the country’s fortunes. Since this period, economic growth in the main has been below or just about equal the population growth rate. Therefore without any doubt, the 1990’s have been a decade of economic decline in Swaziland. In the agriculture sector, the 1990’s would also be remembered for the devastation caused by extreme weather conditions such as the 1992 and 1994 droughts, the storms and floods that have been experienced almost every year in some pockets of the country. The international scene has also been a good one for agriculture either. Indeed over the last two decades (1980s and 1990’s) commodity markets have been very volatile under an environment of increasingly deteriorating terms of trade.

Swaziland, as a member of SADC and signatory to other regional and multinational groupings, is one of those states that are striving to foster regional integration based on export-led and outward-oriented policies. This is seen as a catalyst for attaining accelerated growth and facilitating economic renaissance in the region. Indeed the development of a single market in the region is increasingly viewed as the most urgent priority and major ingredient for revitalizing the economics of the region and ensuring their competitiveness in the global market.

In the context of the SADC region, two major initiatives have been taken with a view to creating opportunities for expanded intra-regional trade and increased predilection of the region to global competitiveness:

- The signing of the protocol for the creation of a SADC Preferential Trade Area, which came into effect in 2000. This protocol aims at gradually removing barriers to trade so that more integrated markets emerge in the region. The target is to achieve a Free Trade Area in SADC by year 2008.
- Active Policy changes aimed at coming to grips with and redressing the ubiquitous macro-economic distortions created by decades of unsustainable state interventions.

A study of comparative advantage such as the one to be discussed here today and tomorrow has the potential to provide the required guidance to policy and towards ensuring complementarity in the economies of the region. Together we can make this potential a reality.

I would like to once again congratulate the United States Government for having the vision to support research and analysis in general and the creation of a regional Free Trade Area in SADC. We all look forward to this SADC vision with great enthusiasm.

Ladies and gentlemen, I am also aware that this gathering has the privilege of having in attendance some of this country's experts in agriculture and economic issues. Therefore the next section of my remarks will be what I perceive as current challenges for agriculture. Of course I would be most pleased if the seminar could shed some light on these issues.

- The first issue concerns the theory of comparative advantage. Essentially this says one must produce what they can produce more efficiently and leave what they can not produce efficiently to others. To many people in Swaziland what this brings to mind is the question of maize, which as we all know is a staple food in the country. What do we do if we do not have comparative advantage in maize production?
- The second issue relates to our alleged over-emphasis on cash crops (sugar to be specific) at the expense of food crops. I would like to challenge all stakeholders to look at the possibility of intercropping the cane with some food crops. We definitely need the food for our sweet stomachs and maybe we could just hit two birds with one stone.
- Another area ladies and gentlemen is that of organic farming. This is an old and forgotten practice that has resurfaced with a bang, mainly attributed to health and environmental conscientiousness. Consequently, organic agriculture as a holistic production, health and environment lobby and major donor agencies such as FAO. An essential component of this system is kraal manure. Swaziland with her large cattle (over 600,000) has tremendous potential for producing kraal manure that can be used for the production of organic foods, for which consumers in more prosperous countries are willing to pay a premium price. I think that there is need to conduct research on the production of kraal manure of high quality as well as research on the response of various crops to kraal manure. Besides reasons of health and less environmental pollution, this could greatly reduce the country's huge import bill for synthetic fertilizer, not to mention the possibility of tapping the rapidly growing market in organic produce.

-
- Another area of concern to me is that of genetically modified organisms. While we appreciate the advances and benefits of biotechnology and genetic engineering, we are nonetheless apprehensive about its impact on biodiversity and the environment. This is an issue that is hotly debated in Chambers of Parliament, workshops and seminars among scientists and indeed in fields among farmers. Whilst the debate rages on, we need to ask ourselves what we know about the impacts of these technologies. For example what do we know about the effects of producing cotton with blue lint on the ecosystem? We believe that it is gatherings such as this one that can shed light on these issues.

At this juncture ladies and gentlemen, may I wish you a very successful two days as you deliberate on this report. May I also assure you that my ministry is willing to collaborate with you on the way forward. I now take pleasure in declaring the seminar on “comparative economic advantage of alternative agricultural production options in Swaziland” officially open.

Good luck.

APPENDIX B. LIST OF PARTICIPANTS AND ADDRESSES

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APPENDIX C. WORKSHOP PROGRAM

Tuesday, April 3, 2001 Afternoon

Arrival of participants from overseas
Registration of participants

Wednesday, April 4, 2001

800-830 Registration continued: Mrs. W Z Matse

SESSION 1: OPENING SESSION

Facilitator: Dr. M J Simeleane

Rapporteur Mrs. Q Z Matse

0830-1030: Introduction of Participants

Welcome remarks: Dr. G N Shongwe, Dean, Faculty of Agriculture, UNISWA

Remarks: Prof. B M Dlamini, Pro Vice Chancellor and Chairperson, UNISWA Research Board

Remarks: Mr. N Nkambule, Principal Secretary, Ministry of Agriculture and Cooperatives

Official Opening: Honorable Minister, Ministry of Agriculture and Cooperatives

Group Photograph

1030-1045: COFFEE/TEA BREAK

SESSION 2: PRESENTATION ON MAIN FINDINGS OF STUDY

Facilitator: Dr. M J Simelane

Rapporteurs: Mr. M. B. Masuku and Mrs. F Magagula

1045-1100: Presentation of Workshop Objectives:

Prof. O T Edje

Overview of the Regional Project: Dr. Brian

D'Silva, USAID Official, Washington

1100-1200: Presentation of main findings and recommendations of the main study of four crops: Prof. C Mataya

1200-1230: Discussion

1230-1400: LUNCH BREAK

1400-1500: Presentation of main findings and recommendations of the main study of three crops

Prof. F Mucavele

1500-1530: COFFEE/TEA BREAK

1530-1545: Briefing and formation of discussion groups

1545- 1700: Group discussion

Thursday, April 5, 2001

SESSION 3: DISCUSSIONS AND RECOMMENDATIONS

0800-0900: Groups finalize discussion and produce report

0900-0930: Group report presentation: Group 1 [4 crops]

0930-1000: COFFEE/TEA BREAK

1000-1030: Group report presentation: Group 2 [4 crops]

1030- 1130: Discussion and harmonization of group reports

1130-1200: General recommendation on the way forward

SESSION 4: CLOSING CEREMONY

**1200-1230: Official Closing: Prof. L P Makhubu,
Vice Chancellor, University of Swaziland**

**1230-1400: LUNCH BREAK AND DEPARTURE
Vice Chancellor, University of Swaziland**

1230-1400: LUNCH BREAK